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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/054,008 | 10/19/2001 | Khoi Nhu Hoang | 60595-300501 | 8683 |

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| EXAMINER |
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RAMAN, USHA

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| ART UNIT | PAPER NUMBER |
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2623

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 03/09/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/054,008

Applicant(s)

HOANG, KHOI NHU

Examiner

Usha Raman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1-17.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) 18-90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED OFFICE ACTION

Miscellaneous

1. Please note the examiner and art unit of record for this application has changed.

Election/Restrictions

2. Applicant's election without traverse of group I, claims 1-17 in the reply filed on November 24th, 2006 is acknowledged.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-17 are rejected under 35 U.S.C. 101 because the Federal Circuit held that the mere manipulations of abstract ideas are not patentable. Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58. If a claimed process manipulates only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the claim is not being applied to appropriate subject matter. Schrader, 22 F.3d at 294-95, 30 USPQ2d at 1458-59. The Federal Circuit also recognizes that the fact that a nonstatutory method is carried out on a programmed computer does not make the process claim statutory. Grams, 888 F.2d at 841, 12 USPQ2d at 1829(claim 16 ruled nonstatutory even though it was a computer- implemented process).

Claims 1-17 reciting the limitation (see claim 1), "a computer implemented universal broadcast method comprising *the act of preparing a delivery matrix*", are

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directed to nothing more than abstract ideas, failing to accomplish a practical application.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "said universal set top box" in line 1. There is insufficient antecedent basis for this limitation in the claim. The claim has been best understood as dependent on claim 5 and examined accordingly.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1–4 and 7–14 are rejected under 35 U.S.C. 102(b) as being anticipated by DeBey (US Pat. 5,701,582).

With regards to Claim 1, DeBey discloses a computer implemented universal broadcast method comprising:

The act of preparing a delivery matrix (via a scheduling routing computer) defining a data transmission sequence suitable for broadcast, to a plurality of clients on-demand in a non-client specific manner (core video programs in continuous demand by subscribers, see column 6, lines 21-23, and 25-31), wherein transmission of said on demand data files comprises a first stream including a first subset of said data transmission sequence and a second stream comprising a second subset of the data transmission sequence (more frequently occurring data packets, such as PKT1, transmitted at predetermined intervals and the remainder of data packets transmitted transmission according to the transmission schedule, see column 11, lines 44-61).

With regards to claim 2, DeBey further discloses the method, wherein the first subset and the second subset do not include any common data blocks (see column 11, lines 44-61). For example, PKT1 is transmitted at a predetermined interval (i.e. first subset) rather than every MRT. The modified scheduling algorithm therefore does not have PKT1 transmitted (i.e. PKT1 is absent from the schedule or the second subset).

With regards to claim 3, DeBey discloses a first subset of optimized data blocks, wherein the optimized set of data blocks is dependent on the frequency on the data block distribution and the second subset is the remainder of the data transmission sequence (PKT1 is the most frequently transmitted data, therefore by pre-storing PKT1, the most frequently transmitted data is eliminated from the second subset)

With regards to claim 4, the first stream further includes a pre fetch stream identifier. See column 6, lines 54-58.

With regards to claim 7, the first subset includes a minimum amount of data block needed to begin a program (e.g. PKT1), wherein minimum amount is dependent on available bandwidth (see column 8, lines 13-20).

With regards to claim 8, DeBey discloses that the first subset of pre stored data (one or more packets) may maybe transmitted at a time prior to when a request for the video is lodged thus reducing transmission bandwidth requirements (see column 11, lines 44-48, and 58-64). DeBey further discloses that the scheduling algorithm for efficient transmission over limited bandwidth and therefore discloses the method of optimizing the ratio of transmission sequence between the first and segment based on the transmission bandwidth available (i.e. limited bandwidth, see column 17, lines 49-53 and fig. 12 and column 19, lines 22-28).

With regards to claim 9, DeBey discloses that the amount of bandwidth is independent of the number of the plurality of clients (see column 3, lines 1-16).

With regards to claim 10, DeBey further discloses the method of generating a delivery matrix comprising the acts of:

Preparing a first scheduling matrix suitable for transmission of a first data file, the first data file being represented by a first plurality of data blocks, the first scheduling matrix (see column 6, lines 16-23) providing a first sequence for transmitting the first plurality data blocks sequentially within time slots (see figs. 9, 17) in a manner such that any client receiving transmission of the first data file

according to the first scheduling matrix may begin accessing the first data file within one time slot (see column 7, lines 62-67 and column 8, lines 10-13).

With regards to claims 11, and 13 the first scheduling matrix is a constant bandwidth scheduling matrix (as shown in figure 9, where the interval bandwidth is always 0.340), such that a constant quantity of data from the first plurality of data blocks are scheduled for transmission during the allocated bandwidth (see fig. 9, and column 16, lines 30-46).

With regards to claim 12, the first scheduling matrix is a variable bandwidth scheduling matrix (interval bandwidth varying from 1-6).

With regards to claim 14, the control of transmission during allocated bandwidth is performed by a low level hardware device (modem 34, see fig. 2 and column 6, lines 35-40).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5-6 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeBey (US Pat. 5,701,582).

With regards to claims 5 and 15, DeBey discloses the pre fetch stream identifier signals a receiver to preload the first stream in to electronic storage onto the receiver for receiving CATV signals (see column 6, lines 41-50 and 54-58,

column 13, lines 1-21). While DeBey does not specifically disclose the receiver as being a set top box, examiner takes Official Notice that set top boxes were well known television receivers in the art at the time of the invention for receiving television signals over a CATV network and processing it for display to a television. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of DeBey to use a set top television receiver, in order to receive television signals over a CATV network and process it for display to a user.

With regards to claim 6, DeBey does not disclose that the receiver loads the first stream when the set top box is idle. Examiner takes official notice that it is well known to download data to a set top box during off peak times (i.e. when idle), in order to reduce bandwidth requirements or network congestion. It would have been obvious to one of ordinary skill in the art at the time

With regards to claims 16 and 17, DeBey does not disclose that the pre-fetch data is received as a result of a user activation of a pre-loading command or pre-ordering a program.

Examiner takes official notice that it is well known for a user to place an order for a program (pre-order) that he/she intends to view at a later time. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system by enabling a user to place an order request for a program (i.e. user activated pre-ordering) that the user intends to view at a later time, thereby enabling the receiver to pre store at least some data packets associated with the program.

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Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UR



SCOTT E. BELIVEAU
PATENT EXAMINER